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EXAMINER	
LIN, JASON K	
ART UNIT	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/604,842	PRESCHUTTI, JOSEPH P.	
	Examiner	Art Unit	
	JASON K. LIN	2623	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *21 August 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-12* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-12* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *21 August 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. This office action is responsive to application No. 10/604,842 filed on 08/21/2003. **Claims 1-12** are pending and have been examined.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. **Claims 1 and 7** are rejected under 35 U.S.C. 103(a) as being unpatentable over Robertson et al. (US 2004/0068747) herein after referred to as Robertson'747 in view of Kliger et al. (US 2003/0066082).

Consider **claims 1 and 7,** Robertson'747 teaches a cable signal distribution system, in combination with an existing cable network in a building, cable device input in the building connected to the existing cable network to supply at least one cable device, cable signal input from outside the building connected to the existing cable network to provide an initial cable signal into the building and a CATV digital set top box (Fig.2; Paragraph 0018), comprising:

a turn-around splitter (SIM 210-Fig.2) including an input (Input to diplex filter 270-Fig.2; Paragraph 0040 teaches the SIM 210 receives the downstream broadband signals from the headend 110 at diplex filter 270) and at least two outputs (268, 265 – Fig.2; Paragraph 0040 teaches

providing the downstream signals to the primary STT 205-Fig.2 or, alternatively, to both the primary STT 205-Fig.2 and the plurality of remote devices 215-n-Fig.2. *Downstream signal goes through diplexer 270 and outputs to diplex filters 250, 260 - Fig.2, which in turn provides outputs the downstream signal from 268, 265 - Fig.2*), said input connected to the cable signal input (Fig.2 - Paragraph 0018, 0024);

a first of at least two outputs of said turn-around splitter connected to the cable device input by a first coaxial cable (265-Fig.2, remote device 215-n - Fig.2; Paragraph 0035 teaches downstream signals are provided to the remote devices 215-n - Fig.2, via coax 221-n - Fig.2);

a second of at least two outputs of said turn-around splitter connected to a second coaxial cable to provide a path between said turn-around splitter and the CATV digital set top box (268-Fig.2; STT 205-Fig.2; Paragraph 0027-0029 teaches a digital STB. Paragraph 0035 teaches downstream signals are provided to the STT 205-Fig.2, via coax 221-n - Fig.2);

said turn-around splitter including band splitting electronics to divide the initial cable signal into a high frequency band and a low frequency band as the initial cable signal enters said input of said turn-around splitter (diplex filter 270-Fig.2; Paragraph 0024, 0035, 0040 teaches the SIM receiving downstream signals that pass through diplex filter 270-Fig.2, providing downstream signals to the other devices in the system. *Diplex filter 270-Fig.2 is made up of both a low pass and a high pass filter, which*

will effectively filter out high and low components of an input signal and pass high and low frequency signals from its corresponding two outputs);

said band splitting electronics having the capability to transmit downstream frequency band out said at least two outputs of said turn-around splitter (Paragraph 0024, 0040; Paragraph 0035 teaches downstream signals ranging from frequencies 45-840 Mhz transmitted to the user), said band splitting electronics having the capability to receive a frequency in a range of said high frequency band at said second of said at least two outputs of said turn-around splitter which is transmitted on said second coaxial cable towards said second of said at least two outputs of said turn-around splitter and redirect said frequency in a range of said high frequency band to said first of said at least two outputs of said turn-around splitter (Fig.2; Paragraph 0035);

a reverse transmitting device (MOD 240-Fig.2, UHF converter 245-Fig.2) connected between said second coaxial cable and the CATV digital set top box (*240, 245-Fig.2 is in between both the input of coaxial cable to diplex filter 235-Fig.2 and the components of STT that provide the downstream output signal from tuner system 335-Fig.2*), said reverse transmitting device configured to receive the output cable signal from the CATV digital set top box (Paragraph 0035 teaches 240,245-Fig.2 receives content signals provided by the tuner system 335-Fig.2), said reverse transmitting device configured to convert and transmit the output cable signal from the CATV digital set top box as a converted output cable

signal on a frequency in a range of said high frequency band to said second of said at least two outputs of said turn-around splitter (Fig.2; Paragraph 0035, 0039); and

said first of said at least two outputs connected to said second of said at least two outputs of said turn-around splitter such that said converted output cable signal from said reverse transmitting device transmitted on the range of said high frequency band to said second of said at least two outputs of said turn-around splitter on said second coaxial cable is transmitted to said first of said at least two outputs of said turn-around splitter and onto the cable device input by said first coaxial cable to feed said at least one cable device in the building with said converted output cable signal from the CATV digital set top box (Fig.2; Paragraph 0035, 0039).

Robertson'747 does not explicitly teach said band splitting electronics having the capability to terminate said high frequency band of said initial cable signal entering said turn-around splitter and prevent transmission of said high frequency band of the initial cable signal entering said turn-around splitter to said at least two outputs of said turn-around splitter.

In an analogous art Kliger teaches, band splitting electronics having the capability to terminate high frequency band of initial cable signal entering said turn-around splitter and prevent transmission of said high frequency band of the initial cable signal entering turn-around splitter to at

least two outputs of said turn-around splitter (Paragraph 0059, 0060 teaches terminating the 'H' port of a diplexer {terminating high frequency band}. Fig.2d, Paragraph 0061 teaches the use of 43-Fig.2b, a diplexer that has its 'H' port terminated in block 14-Fig.2b, as a replacement for diplexer 40. Paragraph 0041, 0052 teaches that data from external network 18 is separated by diplexer 40. *In the embodiment where 43 replaces 40, making a up a new block 14, the high frequency band is prevented from being transmitted from block 14 {turn-around splitter} to the outputs of the system, such as a system shown on Fig.1*).

Therefore, it would have been obvious to a person of ordinary skill in the art to modify Robertson'747s system to include band splitting electronics having the capability to terminate high frequency band of initial cable signal entering said turn-around splitter and prevent transmission of said high frequency band of the initial cable signal entering turn-around splitter to at least two outputs of said turn-around splitter, as taught by Kliger, for the advantage of preventing conflicting data/noise in the home network, as well as preventing insertion of unnecessary data/noise generated by the home network into the external cable network.

Robertson'747 and Kliger do not explicitly teach the downstream is low frequency band.

The selection of frequency range for any communication equipment that is subject to the type of data transmitted, the type of transmission medium, type of communication devices and regulations or restrictions by

the FCC. Furthermore, the allocated frequency ranges for television use may range from anywhere from 5-860 MHz. Depending on the service provider's selection range for upstream/downstream transmission frequencies, it would effectively label whether a downstream frequency band transmission from the service provider is low frequency or high frequency. For example, if the service provider chooses upstream frequencies to be 5-45 MHz and downstream frequencies to be 45-860 MHz, the downstream would essentially be labeled as the high frequency band. In an opposite example, where the service provider chooses upstream frequencies to be 750-860 MHz and downstream frequencies to be 5-750 MHz, the downstream would essentially be labeled as the low frequency band. The mere change in selection of frequencies is well know to one skilled in the art, and ultimately determines the labeling of downstream frequency transmission as either low frequency band or high frequency band, but still provides the same core functions in a television system, and therefore do not provide patentable weight for merely a difference in the selection of frequencies.

It would have been obvious to one of ordinary skill in the art to modify the system of Robertson'747 and Kliger to include downstream frequency band as low frequency band, since the selection of frequency range for any communication equipment that is subject to the type of data transmitted, the type transmission medium, type of communication devices and regulations or restrictions by the FCC, and merely selecting

frequency ranges allocated by the FCC for transmission by a service provider is within the level of one skilled in the art. Furthermore, a skilled artisan would be able to select for transmission of downstream signals on a low frequency band by merely selecting from the frequency range of 5-860 MHz that has been allocated by the FCC for television transmission.

4. **Claims 2 and 8** are rejected under 35 U.S.C. 103(a) as being unpatentable over Robertson et al. (US 2004/0068747) herein after referred to as Robertson'747 in view of Kliger et al. (US 2003/0066082), and further in view of Robertson et al. (US 2004/0068753) herein after referred to as Robertson'753.

Consider **claims 2 and 8,** Robertson'747 and Kliger teach each of input diplex filters configured to divide the initial cable signal into said high frequency band and said low frequency band (Robertson'747 - diplex filter 270-Fig.2; Paragraph 0024, 0035, 0040 teaches the SIM receiving downstream signals that pass through diplex filter 270-Fig.2, providing downstream signals to the other devices in the system. *Diplex filter 270-Fig.2 is made up of both a low pass and a high pass filter, which will effectively filter out high and low components of an input signal and pass high and low frequency signals from its corresponding two outputs*), each of said input diplex filters configured to pass said low frequency band (Robertson'747 - Paragraph 0024, 0040; Paragraph 0035 teaches downstream signals ranging from frequencies 45-840 Mhz transmitted to the user; *Also see rejection in claims 1&7 regarding low frequency band*)

and terminate said high frequency band of the initial cable signal (Kliger - Paragraph 0059, 0060 teaches terminating the 'H' port of a diplexer {terminating high frequency band}); wherein said band splitting electronics includes an output diplex filter connected to each of said input diplex filters to receive said low frequency band (Robertson'747 – diplexers 250, 260; Paragraph 0024, 0040; Paragraph 0035 teaches downstream signals ranging from frequencies 45-840 Mhz transmitted to the user; *Also see rejection in claims 1&7 regarding low frequency band*), said output diplex filters connected together to transmit said converted output cable signal in the range of said high frequency band (Robertson'747 - Fig.2; Paragraph 0035, 0039), said output diplex filters each having a output connected to one of said at least two outputs of said turn-around splitter to transmit said low frequency band of the initial cable signal to said the cable device input and the CATV digital set top box, and also transmit said converted output cable signal to the cable device input (Robertson'747 - Fig.2; Paragraph 0035, 0039; Paragraph 0024, 0040; Paragraph 0035 teaches downstream signals ranging from frequencies 45-840 Mhz transmitted to the user. *Also see rejection in claims 1&7 regarding low frequency band*).

Roberson'747 and Kliger do not explicitly teach wherein said band splitting electronics includes an internal splitter having an input and at least two outputs;

wherein said input of said internal splitter is connected to said input of said turn-around splitter to receive the initial cable signal;

wherein the initial cable signal is split between said at least two outputs of said internal splitter; wherein said band splitting electronics includes an input diplex filter for each of said at least two outputs of said internal splitter.

In an analogous art Robertson'753 teaches, wherein band splitting electronics includes an internal splitter having an input and at least two outputs (Fig.11b teaches a splitter having input "To/Form CN", and outputs "1104" and "1122");

wherein said input of said internal splitter is connected to said input of a turn-around splitter to receive an initial cable signal (Fig.11b, 0053, 0067, 0069, 0076 teaches input of splitter is connected to the input in order to received initial cable signal);

wherein the initial cable signal is split between said at least two outputs of said internal splitter (Fig.11b, 0053, 0067, 0069, 0076 teaches splitter receives initial cable signal from the headend. *The inherent characteristics of a splitter is to split inputted signals and output them from its outputs*); wherein said band splitting electronics includes an input diplex filter for each of said at least two outputs of said internal splitter (Fig.11b, diplexers 1102, 1120).

Therefore, it would have been obvious to a person of ordinary skill in the art to modify the system of Robertson'747 and Kilger to include wherein band splitting electronics includes an internal splitter having an input and at least two outputs; wherein said input of said internal splitter is

connected to said input of a turn-around splitter to receive an initial cable signal; wherein the initial cable signal is split between said at least two outputs of said internal splitter; wherein said band splitting electronics includes an input diplex filter for each of said at least two outputs of said internal splitter, as taught by Robertson'753, for the advantage of allowing for both outputs to effectively separate and filter the high/low frequencies contained in the signal, allowing for easier processing by the system.

5. **Claims 3-4 and 9-10** are rejected under 35 U.S.C. 103(a) as being unpatentable over Robertson et al. (US 2004/0068747) herein after referred to as Robertson'747, in view of Kliger et al. (US 2003/0066082), and further in view of Williams, Jr. (US 6,202,211).

Consider **claims 3 and 9,** Robertson'747 and Kliger teach wherein said reverse transmitting device is a video hub (MOD 240-Fig.2, UHF converter 245-Fig.2), said video hub having the capability to receive the output signal from said CATV digital set top box (Robertson'747 - Paragraph 0035 teaches 240,245-Fig.2 receives content signals provided by the tuner system 335-Fig.2) and transmit the output signal from said CATV digital set top box on said second coaxial cable as said converted output cable signal to said second of said at least two outputs of said turn-around splitter on said high frequency band (Robertson'747 - Fig.2; Paragraph 0035, 0039), but do not explicitly teach said video hub having the capability to receive said low frequency band from said second of said

at least two outputs of said turn-around splitter on said second coaxial cable and transmit said low frequency band to said CATV digital set top box.

In an analogous art Williams Jr. teaches, video hub having the capability to receive low frequency band from second of at least two outputs of turn-around splitter on second coaxial cable and transmit said low frequency band to CATV digital set top box (22, 51, 62, 65 – Fig.5; Col 6: lines 43-45, Col 7: lines 42-53; *Also see rejection in claims 1&7 regarding low frequency band*).

Therefore, it would have been obvious to a person of ordinary skill in the art to modify the system of Robertson'747 and Kliger to include video hub having the capability to receive low frequency band from second of at least two outputs of turn-around splitter on second coaxial cable and transmit said low frequency band to CATV digital set top box, as taught by Williams Jr., for the advantage of easily and efficiently providing and passing programming to the client device, allowing the client device to receive and process programming.

Consider **claims 4 and 10,** Robertson'747 and Kliger teach a reverse transmitting device (MOD 240-Fig.2, UHF converter 245-Fig.2), transmitting means for receiving the output signal from said CATV digital set top box and transmitting the output signal from said CATV digital set top box on said second coaxial cable as said converted output cable

signal to said second of said at least two outputs of said turn-around splitter on said high frequency band (Robertson'747 - Fig.2; Paragraph 0035, 0039), but do not explicitly teach wherein said reverse transmitting device is a transmitting means for receiving said low frequency band from said second of said at least two outputs of said turn-around splitter on said second coaxial cable and transmitting said low frequency band to said CATV digital set top box.

In an analogous art Williams Jr. teaches, wherein reverse transmitting device is a transmitting means for receiving low frequency band from second of said at least two outputs of turn-around splitter on second coaxial cable and transmitting said low frequency band to said CATV digital set top box (22, 51, 62, 65 – Fig.5; Col 6: lines 43-45, Col 7: lines 42-53; *Also see rejection in claims 1&7 regarding low frequency band*).

Therefore, it would have been obvious to a person of ordinary skill in the art to modify the system of Robertson'747 and Kliger to include wherein reverse transmitting device is a transmitting means for receiving low frequency band from second of said at least two outputs of turn-around splitter on second coaxial cable and transmitting said low frequency band to said CATV digital set top box, as taught by Williams Jr., for the advantage of easily and efficiently providing and passing programming to the client device, allowing the client device to receive and process programming.

6. **Claims 5-6 and 11-12** are rejected under 35 U.S.C. 103(a) as being unpatentable over Robertson et al. (US 2004/0068747) herein after referred to as Robertson'747, in view of Kliger et al. (US 2003/0066082), in view of Robertson et al. (US 2004/0068753) herein after referred to as Robertson'753, and further in view of Williams, Jr. (US 6,202,211).

Consider **claims 5 and 11** Robertson'747, Kliger, and Robertson'753 teach wherein said reverse transmitting device is a video hub (MOD 240-Fig.2, UHF converter 245-Fig.2), said video hub having the capability to receive the output signal from said CATV digital set top box (Robertson'747 - Paragraph 0035 teaches 240,245-Fig.2 receives content signals provided by the tuner system 335-Fig.2) and transmit the output signal from said CATV digital set top box on said second coaxial cable as said converted output cable signal to said second of said at least two outputs of said turn-around splitter on said high frequency band (Robertson'747 - Fig.2; Paragraph 0035, 0039), but do not explicitly teach said video hub having the capability to receive said low frequency band from said second of said at least two outputs of said turn-around splitter on said second coaxial cable and transmit said low frequency band to said CATV digital set top box.

In an analogous art Williams Jr. teaches, video hub having the capability to receive low frequency band from second of at least two outputs of turn-around splitter on second coaxial cable and transmit said low frequency band to CATV digital set top box (22, 51, 62, 65 – Fig.5; Col

6: lines 43-45, Col 7: lines 42-53; *Also see rejection in claims 1&7 regarding low frequency band*).

Therefore, it would have been obvious to a person of ordinary skill in the art to modify the system of Robertson'747, Kliger, and Robertson'753 to include video hub having the capability to receive low frequency band from second of at least two outputs of turn-around splitter on second coaxial cable and transmit said low frequency band to CATV digital set top box, as taught by Williams Jr., for the advantage of easily and efficiently providing and passing programming to the client device, allowing the client device to receive and process programming.

Consider **claims 6 and 12** Robertson'747, Kliger, and Robertson'753 teach a reverse transmitting device (MOD 240-Fig.2, UHF converter 245-Fig.2), transmitting means for receiving the output signal from said CATV digital set top box and transmitting the output signal from said CATV digital set top box on said second coaxial cable as said converted output cable signal to said second of said at least two outputs of said turn-around splitter on said high frequency band (Robertson'747 - Fig.2; Paragraph 0035, 0039), but do not explicitly teach wherein said reverse transmitting device is a transmitting means for receiving said low frequency band from said second of said at least two outputs of said turn-around splitter on said second coaxial cable and transmitting said low frequency band to said CATV digital set top box.

In an analogous art Williams Jr. teaches, wherein reverse transmitting device is a transmitting means for receiving low frequency band from second of said at least two outputs of turn-around splitter on second coaxial cable and transmitting said low frequency band to said CATV digital set top box (22, 51, 62, 65 – Fig.5; Col 6: lines 43-45, Col 7: lines 42-53; *Also see rejection in claims 1&7 regarding low frequency band*).

Therefore, it would have been obvious to a person of ordinary skill in the art to modify the system of Robertson'747, Kliger, and Robertson'753 to include wherein reverse transmitting device is a transmitting means for receiving low frequency band from second of said at least two outputs of turn-around splitter on second coaxial cable and transmitting said low frequency band to said CATV digital set top box, as taught by Williams Jr., for the advantage of easily and efficiently providing and passing programming to the client device, allowing the client device to receive and process programming.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JASON K. LIN whose telephone number is (571)270-1446. The examiner can normally be reached on Mon-Fri, 9:00AM-6:00PM, EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian T. Pendleton can be reached on (571)272-7527.

The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Jason Lin

04/17/2008

/Brian T. Pendleton/
Supervisory Patent Examiner, Art Unit 2623